



White-tailed Deer in the Cuyahoga Valley

Photo by Tom Jones



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NPS Photo

Deer are now a common sight in Cuyahoga Valley National Park (CVNP). Have you ever wondered about the impact of so many deer? Two familiar concerns may be automobile accidents and damage to landscaping. Less familiar may be the impact on the natural environment. Since the mission of the National Park Service (NPS) is to protect the natural resources of parks, this latter concern is driving the decision to develop a deer management plan for CVNP.

How do we decide when there are too many deer? Research has shown that deer begin to affect their natural surroundings at 10- 20 deer per square mile. Today deer populations can exceed 100 per square mile in CVNP. Use this bulletin as a guide for understanding the white-tailed deer situation in CVNP.

Deer Population Factors

The high population level of white-tailed deer is tied to its natural history. The white-tailed deer is a prey animal. Like other prey animals, they reproduce at a high rate. Most does first have a single fawn at 1 ½ years of age. In each successive year of their average five-year life span, does typically will have twins and triplets.

High birth rates counteract population losses from predation. However, few deer predators remain in CVNP. Only coyotes may prey on deer, primarily scavenging on dead deer or taking newborn fawns. Hunting also is prohibited on park lands.

Trends in Population

From European settlement to the early 1900s, deer nearly disappeared from Ohio due to loss of forests and unrestricted hunting. Reestablishment began in the 1930s through immigration of deer from Michigan and Pennsylvania, a restocking effort in southern Ohio, hunting controls, and improved habitat resulting from a mix of agriculture, old fields, and forest fragments.

Since the 1960s, Ohio's deer population has grown dramatically. From an estimated 17,000 deer in 1965, populations

reached 400,000 in 1994 and up to 700,000 in 2006.

The deer population in CVNP has likewise grown to unprecedented levels. Best estimates of deer densities in eastern forests prior to European settlement are 8- 11 deer per square mile. Today densities in CVNP are estimated at as many as 130 deer per square mile. The NPS has monitored deer populations since 1990 through roadside spotlight surveys, distance sampling, aerial surveys, and fecal pellet group surveys.

Observing Deer Impacts

Imagine walking into a forest covered with native white- flowered trillium and a multitude of other wildflowers. You see a mixed forest with trees ranging from the smallest seedlings to towering giants. Now imagine returning 15 years later. Trillium has disappeared, and very few other wildflowers are present. Instead an endless amount of invasive garlic mustard covers the forest floor. As you look to the forest horizon, you see no young tree seedlings, and nearly all the leaves have disappeared from the larger trees below three feet.

This image reflects the impact of large deer populations on the natural

environment and is supported by scientific studies. Scientists consider trillium an indicator species for white -tailed deer impacts, since it is a preferred food that fails to flower when browsed by deer. Plant monitoring at locations throughout the park has revealed decreases in flowering trillium, diversity of ground cover and shrubs, and abundance of plants and tree seedlings.

This scenario is not unique to CVNP or to northeastern Ohio. Adverse ecological impacts of high deer (and other ungulate) numbers have been documented in hundreds of scientific studies throughout the United States.

Developing a Plan

CVNP is currently addressing the complex issues associated with a high deer population and its impacts by preparing a White- tailed Deer Management Plan and Environmental Impact Statement (EIS). The purpose of the Plan and EIS is to support long- term protection, preservation, and restoration of deer, other native species, and other park resources.

The Plan and EIS will analyze many complex ecological and social issues. Your participation is encouraged and needed. You can participate in scoping meetings or submit written comments online or through the mail.

Planning updates will be posted online at www.nps.gov/cuva. Comments can be submitted electronically to <http://parkplanning.nps.gov/CUVA>. Written comments can be submitted to:

Science and Resource Management
Cuyahoga Valley National Park
15610 Vaughn Road
Brecksville, OH 44141

When sending comments, please be sure to include your name and address so we may add you to the mailing list for notification about future steps in the planning process.



**Cuyahoga Valley
National Park**